UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,823	10/29/2003	Shinichiro Fukuoka	N0520.0047/P047	6755

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DICKSTEIN SHAPIRO LLP
1825 EYE STREET NW
Washington, DC 20006-5403

EXAMINER
SHIMIZU, MATSUICHIRO

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 August 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>8/3/06</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

Response to Amendment

No amendment was provided in the applicant's response.

Response to Arguments

Applicant' s arguments filed on 5/3/2006 have been fully considered and examiners response is provided as follows:

Regarding applicant's argument (lines 6-14, page 8; lines 5-12, page 9), the specification provided by the applicant's argument is not written in the claims 1-2.

Regarding applicant's argument (line 20, page 8 to line 4, page 9) that **693-3 does not disclose determining response timing of the non-contact electronic tag** , the examiner maintains that **693-3 discloses** the response timing (Fig. 9, response timing associated with a mask value plus a slot number) of a tag is based entirely on when a match occurs between a part of its unique identifier ("a part of predetermined data stored in the non-contact electronic tag" cited in claims 1, 9 and 13). If there is no match, the tag does not respond. If there is a match, it does respond. Thus, the "response timing" is "determined". The information which is used as a reference is a mask value plus a slot number as shown in figure 9, while this data is not a time slot, per se, it is information that is used to determine a response timing of the tag.

Regarding applicant's argument (lines 19-24, page 9) that Ikeda fails noncontact electronic tag storing such data, the examiner maintains that Ikeda discloses reader 21c reads a signal associated with lending code 21b stored in the tag (par. 0038, line 8).

Therefore, rejection of claims 1-17 follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (JP2001199511) in view ISO/IEC15693-3 (693-3, copy right- 2001).

Regarding **claims 1, 9 and 13**, Ikeda teaches a non-contact electronic tag 11 attached to library book 12 (Fig. 1, par. 024), wherein tag 11 stores tag ID (par. 0029) and **inhibit or permission** code (par. 0032, 'o' or '1') to pass the security gate (par. 0038). Furthermore, Ikeda teaches tag reader reads tag

memory, and verify the checked-out book and flag at the host computer 14 and open the gate 21f (Fig. 7, par. 0038).

But Ikeda is silent on **a reference transmission section** for transmitting information, which becomes **a reference for determining response timing of the noncontact electronic tag attached to the object, to the noncontact electronic tag,**

wherein a reference transmission section transmits information, which specifies a part of predetermined data stored in the noncontact electronic tag to the noncontact electronic tag so that the noncontact electronic tag transmits information which becomes a reference specified by the part of the predetermined data.

However, 693-3 discloses anti-collision protocol in figure 9. As seen in figure 9, the response timing of a tag is based entirely on when a match occurs between a part of its unique identifier ("a part of predetermined data stored in the non-contact electronic tag" cited in claims 1, 9 and 13). If there is no match, the tag does not respond. If there is a match, it does respond. Thus, the "response timing" is "determined". The information which is used as **a reference** is a mask value plus a slot number as shown in figure 9 of 693-3, while this data is not a time slot, per se, it is **information that is used to determine a response timing of the tag.**

Based on this, it would have obvious to include the anti-collision protocol
as described in ISO in Ikeda so that data collision from multiple tags is
minimized.

Likewise, **693-3** discloses, in the art of anti-collision protocol,

wherein a reference transmission section transmits information, which
specifies a part of predetermined data (Fig. 9, page 16, comparison of UID with
predetermined data associated with MASK value; sec. 8.1, page 14, MASK and
MASK VALUE specify location in the stored UID of the tag) stored in the
noncontact electronic tag to the noncontact electronic tag so that the
noncontact electronic tag transmits information which becomes a reference
specified by the part of the predetermined data (DSFID (sec. 4.3, page 6, DSFID)
determines format of UID in the inventory response format (Fig. 12, Page 23))
for the purpose of providing anti-collision scheme of providing inventory of a
plural tags.

Therefore, it would have been obvious to a person skilled in the art at the
time the invention was made to include a reference transmission section for
determining response timing of the noncontact electronic tag attached to the
object, to the noncontact electronic tag,

wherein a reference transmission section transmits information, which
specifies a part of predetermined data stored in the noncontact electronic tag
to the noncontact electronic tag so that the noncontact electronic tag transmits
information which becomes a reference specified by the part of the

predetermined data in the device of Ikeda as evidenced by **693-3** because such partial comparison provides reduced collision, thus providing anti-collision scheme of providing inventory of a plural tags.

Regarding **claim 2**, 693-3 continues, as claimed in claim 1 to disclose, in the art of anti-collision protocol, **repetitive processing** of changing a specification position in the specification data and again executing the interrogation communication processing upon detection of collision (Annex B, page 40, recursive processing upon collision, and going to next sub-address wherein new mask is generated (mask = address & mask) associated with changing a specification position).

Regarding **claim 3**, 693-3 continues, as claimed in claim 2, to teach a limitation condition (Annex B, coding section starting " for address", page 40, recursively processing address up-to 2*sub-address-size-1) is set for terminating repetition of the repetitive processing regardless of whether or not collision avoidance is accomplished.

Regarding **claims 4-6**, Ikeda teaches the passage radio communication unit executes the tag access processing (Fig. 7, par. 0038, security gate 21f) and article-unique data (par. 0029), inhibition of passage (Fig. 7, par. 0038, inhibition associated with security gate 21f), passage radio communication unit (Fig. 7, pars. 0037-0038, read device 21c and control 13).

Regarding **claim 7**, 693-3 continues, as claimed in claims 2, to teach a simple tag access processing (section 7.2.1, page 8, when address-flag is set to

1, request contains UID, and response will be matching UID if exist) of

transmitting an interrogation signal to a plurality of noncontact electronic tags.

All subject matters except an application family identifier, wherein said

application family identifier comprises **lending processing data** and return

processing data in **claim 8** are discussed above with regards to claims 1 and 4.

However, **Ikeda** teaches coding signal, wherein coding signal comprises

lending processing data (Fig. 7, par. 0038, code associated with completion of

lending out is set to "0" -gate opens) and **return processing** by coding signal to

"1" (par. 0035).

Likewise, **693-3** teaches, in the art of anti-collision protocol,

application family identifier (AFI) (sec. 4.2, page 3, AFI is coded on one byte,

which constitutes 4 bits each) associated with "0" and "1" control bits of Ikeda

for purpose of providing four control flag options.

Therefore, it would have been obvious to a person skilled in the art at the

time the invention was made to include application family identifier (AFI) in the

device of **Ikeda** as evidenced by 693-3 because such AFI parameter provides

four control options in comparison to two control options of coding signal, thus

providing more control features.

Therefore rejection of the subject matters expressed in claim 8 are met

by references and associated arguments applied to rejection of claims 1 and 4

and to rejection provided in the previous paragraph.

Regarding **claims 10 and 14**, 693-3 continues, as claimed in claims 9

and 13, to disclose collision avoidance scheme (sec. 9.1.4.1, page 20, wait for

t-nrt and additional t2 for subsequent inventory request when detecting

collisions) or collision mitigation scheme wherein a plurality of noncontact

electronic tags (sec. 9.1.4.1, page 20, collision associated with a plurality of

tags) or pager device or noncontact electronic tags.

Regarding **claims 11 and 15**, Ikeda teaches the article management

method as claimed in claim 10 and 14, wherein the tag access processing is

executed for the noncontact electronic tag attached to the article whose

passage is inhibited (fig. 7, par. 0038, security gate 21f).

Regarding **claims 12 and 16**, Ikeda teaches a user radio electronic

medium capable of identifying each user and storing user data to receive the

user data from the user radio electronic medium (fig. 7, par. 0038, security

gate 21f communicating with host computer 14 permit or inhibit the user from

exiting).

All subject matters in claim 17 are discussed above with regards to

claims 1-3, and therefore rejection of the subject matters expressed in claim

17 are met by references and associated arguments applied to rejection of

claims 1-3.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final act.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is 571-272-3066. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3068.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matuichiro Shimizu
October 26, 2006

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600